

Claims

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~~1. A method for establishing a signaling connection with a terminal (102, 103, 104) in a central unit (101) of a communications system, said terminal and central unit comprising a network interface (107, 108, 109) and signaling unit (105, 106, 110), characterized in that it comprises steps in which~~

- ~~- by means of communication between the central unit's network interface (107, 108) and the terminal's network interface (109), information is created about the signaling protocol supported by the terminal, and~~
- ~~- signaling is started using a signaling unit (105, 106) in the central unit that supports the same signaling protocol as the terminal.~~

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~~2. The method of claim 1, characterized in that therein~~

- ~~- a message (201) is sent from the central unit's network interface (107) to the terminal, indicating the signaling protocols supported by the central unit,~~
- ~~- in response to an answer message (202) sent by the terminal indicating the terminal's selection for signaling protocol, a connection is established (203, 204) between the central unit's network interface (107) and the central unit's signaling unit (105) that supports the signaling protocol chosen by the terminal, and~~
- ~~- a point-to-point signaling connection (205) is established between the central unit and the terminal using the signaling protocol selected by the terminal.~~

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~~3. The method of claim 2, characterized in that said message (201) contains a code for signaling protocol support and an associated value which is a binary number and in which each bit represents a particular signaling protocol.~~

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~~4. The method of claim 3, characterized in that in response to a situation in which the central unit's capability of supporting various signaling protocols changes, a change message is sent to the terminal indicating the signaling protocols supported by the central unit after the change.~~

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~~5. The method of claim 1, characterized in that therein~~

- ~~- by means of communication according to the MAC protocol layer between the central unit's network interface (107, 108) and the terminal's network interface (109), information is created about the signaling protocol supported by the terminal, and~~

~~- signaling is started using a signaling unit (105, 106) in the central unit that supports the same CC protocol layer signaling protocol as the terminal.~~

6. A method for establishing a signaling connection with a central unit (101) in a terminal (102, 103, 104) of a communications system, said terminal and central unit comprising a network interface (107, 108, 109) and signaling unit (105, 106, 110), characterized in that it comprises steps in which

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a - in response to a message (201) sent by the central unit's network interface (107) indicating the signaling protocols supported by the central unit, an answer message (202) is sent from the terminal's network interface (109) indicating

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- the signaling protocol selected by the terminal when the terminal supports a signaling protocol mentioned in said message, or
- the incapability of the terminal of supporting a protocol indicated in the message when the terminal does not support any one of the signaling protocols mentioned in said message, and
- a connection is established (206, 207) between the terminal's network interface (109) and the terminal's signaling unit (110).

7. The method of claim 6, characterized in that in response to a situation in which a change message sent by the central unit indicating the signaling protocols supported by the central unit after a change causes a conflict, a message is sent to the central unit including a code for signaling protocol support and an associated value which is a binary number and in which each bit represents a particular signaling protocol and in which the bits that represent protocols that cause a conflict are set.

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8. A central unit (101) in a communications system, comprising a signaling unit (105, 106) and a network interface (107, 108), characterized in that it is equipped so as to use in a signaling connection with a terminal of the communications system at least one signaling protocol, to which end it comprises means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up a signaling connection via the central unit's network interface, using a selected signaling protocol between the central unit and the terminal.

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9. A terminal (102, 103, 104) in a communications system, comprising a signaling unit (110) and a network interface (109), characterized in that it is

equipped so as to use in a signaling connection with a central unit of a communications system at least one signaling protocol, to which end it comprises means for

- indicating to the central unit, in response to a message sent by the central unit, the capability of the terminal of supporting a particular signaling protocol, and
- establishing via a network interface in the terminal a signaling connection between a signaling unit in the terminal and the central unit, using a signaling protocol supported by the terminal.

10. 10. A communications system (100) comprising a central unit (101) and terminals (102, 103, 104), **characterized** in that it is equipped so as to set up and maintain a signaling connection between the central unit and at least one terminal, using one signaling protocol, to which end it comprises

- in the central unit, means for indicating to the terminal the signaling protocols supported by the central unit and means for setting up via the central unit's network interface a signaling connection using a selected signaling protocol between the central unit's signaling unit and the terminal, and
- in the terminal, means for
 - indicating to the central unit the capability of the terminal of supporting a particular signaling protocol in response to a message sent by the central unit, and
 - setting up via a network interface in the terminal a signaling connection between a signaling unit in the terminal and the central unit, using a signaling protocol supported by the terminal.

11. The communications system of claim 10, **characterized** in that it is a multiple access network in which the physical connection (111) between the central unit and the terminals is one of the following: cable, optical fiber, combination of those, satellite link, terrestrial radio link, Local Multipoint Distribution connection, Microwave Multipoint Distribution System connection.

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